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## **CLAIMS**

A method for encrypting an electronic message composed by a sender using an abbreviated address book for delivery over a mail system to a recipient who holds a digital certificate, comprising:

- (a) when the sender is off-line, inserting an encryption flag in a header associated with the electronic message;
- (b) placing the header and the message in plain text in an outbox;
- (c) when the sender is on-line, in response to the flag, requesting the digital certificate from the mail system; and
  - (d) using the received certificate to encrypt the plain text mail message.
- 1 2. The method according to claim 1 further comprising:
  - (e) sending the encrypted mail message to the mail system.
  - 3. The method according to claim 1 further comprising:
    - (f) when the sender is on-line, if the flag indicates that the message is encrypted, sending the encrypted mail message to the mail system.
  - 4. The method according to claim 1 wherein step (c) comprises:
    - (c1) requesting the digital certificate from the mail system; and
- 3 (c2) if the certificate is unavailable, informing the sender that the message cannot be encrypted.
- 1 5. The method according to claim 4 further comprising:
- 2 (g) sending the unencrypted mail message in the outbox to the mail system when the message cannot be encrypted.

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- The method according to claim 1 wherein the header comprises information 6. identifying the recipient and step (c) comprises:
  - using the identifying information to locate the recipient in the mail system and to retrieve the certificate.
  - 7. Apparatus for encrypting an electronic message composed by a sender using an abbreviated address book for delivery over a mail system to a recipient who holds a digital certificate, comprising:

a\mail composer which inserts an encryption flag in a header associated with the electronic message when the sender is off-line;

a sending mechanism which places the header and the message in plain text in an outbox:

a verification mechanism which is operable when the sender is on-line and, in response to the flag, requests the digital certificate from the mail system; and

an encryption mechanism which uses the received certificate to encrypt the plain text mail message.

- 8. The apparatus according to claim 7 further comprising: an outbox mechanism which sends the encrypted mail message to the mail system.
- 9. The apparatus according to claim 7 further comprising: 1
  - a mail mechanism which operates when the sender is on-line and, if the flag indicates that the message is encrypted, sends the encrypted mail message to the mail system.
- The apparatus according to claim 7 wherein the verification mechanism 10. 1 comprises: 2

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	3		a mechanism which requests the digital certificate from the mail system;
	4		and
	5		warning apparatus which informs the sender that the message cannot be
	6		encrypted if the certificate is unavailable.
	1	11.	The apparatus according to claim 10 further comprising:
1	2		An outbox mechanism which sends the unencrypted mail message in the
	3		outbox to the mail system when the message cannot be encrypted.
/			
	1	12.	The apparatus according to claim 7 wherein the header comprises information
	2		identifying the recipient and wherein the verification apparatus comprises:
= £	3		a locator which uses the identifying information to locate the recipient in
in the state of	4		the mail system and to retrieve the certificate.

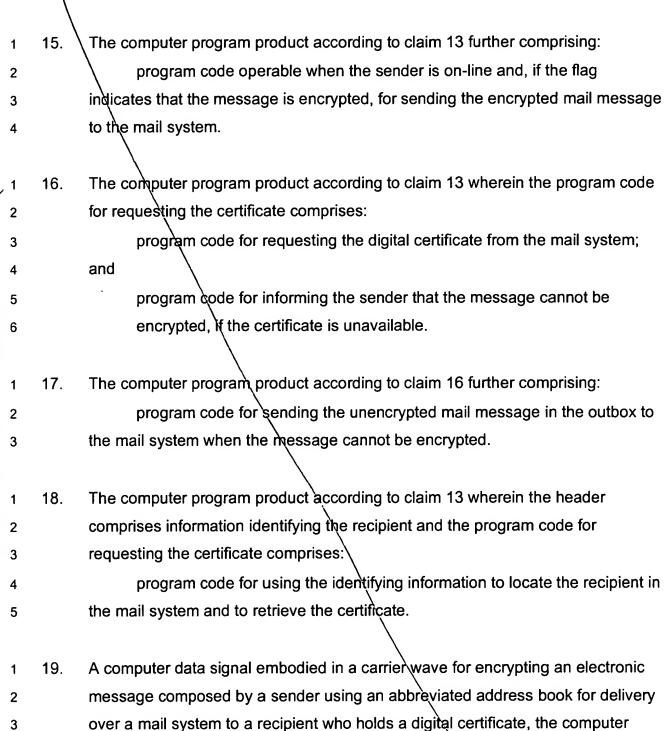
13. A computer program product for encrypting an electronic message composed by a sender using an abbreviated address book for delivery over a mail system to a recipient who holds a digital certificate, the computer program product comprising a computer usable medium having computer readable program code thereon, including:

program code operable when the sender is off-line, for inserting an encryption flag in a header associated with the electronic message;

program code for placing the header and the message in plain text in an outbox;

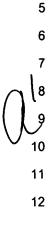
program code operable when the sender is on-line and, in response to the flag, for requesting the digital certificate from the mail system; and program code for using the received certificate to encrypt the plain text mail message.

14. The computer program product according to claim 13 further comprising:



program code for sending the encrypted mail message to the mail system.

data signal comprising:



program code operable when the sender is off-line, for inserting an encryption flag in a header associated with the electronic message;

program code for placing the header and the message in plain text in an outbox;

program code operable when the sender is on-line and, in response to the flag, for requesting the digital certificate from the mail system; and program code for using the received certificate to encrypt the plain text mail message.

1 20. The computer data signal according to claim 19 further comprising:
2 program code for sending the encrypted mail message to the mail system.